



State of Michigan  
Jennifer M. Granholm, Governor

Department of Labor and Economic Growth  
David C. Hollister, Director

Energy Office  
P.O. Box 30221  
Lansing, MI 48909

## ENERGY STAR HOME GRANT PROGRAM - 2005

The goal of this program is to encourage energy efficiency and innovation in the design and construction of new houses. Financial incentives are available for five new houses that can achieve an **Energy Star** or **Five Star** rating. The houses will be built in 2005. A total of \$40,000 is available for these grants.

### WHAT IS A FIVE STAR HOME?

A Home Energy Rating indicates the energy efficiency of a new or existing house. A computer software program is used to model a home's energy usage and compare the home's energy performance against the best performance possible for that structure. Ratings are 1-100 points and 1-5 stars. A five star rating qualifies a house for the Energy Star designation.

<u>Points</u>	<u>Stars</u>	<u>Energy Efficiency</u>
1-39	One	Very Inefficient
40-59	Two	Inefficient
60-79	Three	Average
80-85	Four	Energy Efficient
86-100	Five	Very Energy Efficient

### WHAT INCENTIVES ARE AVAILABLE?

Incentives are available for **five** new houses that achieve a Five Star rating. The selected home builders would be eligible for up to \$5,000 based on the size of the house (\$2.50/square foot of livable space) plus \$3,000 which could be used for marketing and rating expenses.

### WHICH HOUSES ARE ELIGIBLE & HOW WILL THE HOUSES BE SELECTED?

Only licensed builders are eligible and builders can only submit one application. Previous Five Star Home grant winners are not eligible. The date of the application must precede the date of the building permit. House construction should be completed by December 31, 2005. The Five Star rating will be the **minimum** criterion. Selection will be based on energy efficiency, innovative features, and marketing plans. Bonus points will be given to houses that have less than 1,500 square feet of livable space. The Easy Rating worksheet will be used in the application. The five home builders who are selected will be required to obtain a Home Energy Rating. In an effort to feature Energy Star houses throughout the State, geographic location will be considered when reviewing the grant applications.

### HOW DO I APPLY?

An application will consist of three parts: 1) cover sheet, 2) description of innovations and marketing plans, and 3) Easy Rating worksheet. Application forms have to be submitted to Energy Office, P.O. Box 30221, Lansing, MI 48909 by **December 15, 2004**.

# ENERGY STAR HOME GRANT APPLICATION (SAMPLE) - 2005

## Part 1: Identification and Budget

Business Name: Nash Builders

Street Address: 243 Scrapwood Blvd.

City, State, Zip: Hell, MI 48137

Contact Person: Jerry Nash

Phone: 517/241-6238

Federal I.D. Number: 38-0000007

Home Address: 196 Rugged Rd., Pinckney, MI

Expected Completion Date: 10/15/05 Square Footage of Livable Space: 2,400

### Budget:

Energy Efficiency Incentive (\$2.50/square foot up to \$5,000) \$5,000

Marketing costs (up to \$3,000) 2,700

Home Energy Rating (up to \$300) 300

Note: Grantees will be required to obtain an "on-site" rating including blower door test.

Total costs (cannot exceed \$8,000) \$8,000

**Part 2: Innovations and Marketing Plans:** On a separate sheet answer the following two questions.

1. What energy efficiency and/or renewable resource innovations have been incorporated into the design of the house?
2. What special marketing efforts will be used to highlight the Energy Star home?

This sheet plus Part 2: Innovations & Marketing Plans, and an Easy Rating worksheet must be submitted by **December 15, 2004** to: Energy Office, P.O. Box 30221, Lansing, MI 48909. Questions should be directed to Patrick Hudson at 517/241-6154.

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## ENERGY STAR HOME GRANT APPLICATION - 2005

### Part 1: Identification and Budget

Business Name: \_\_\_\_\_

Street Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: \_\_\_\_\_

Federal I.D. Number: \_\_\_\_\_

Home Address: \_\_\_\_\_

Expected Completion Date: \_\_\_\_\_ Square Footage of Livable Space: \_\_\_\_\_

#### Budget:

Energy Efficiency Incentive (\$2.50/square foot up to \$5,000) \_\_\_\_\_

Marketing costs (up to \$3,000) \_\_\_\_\_

Home Energy Rating (up to \$300) \_\_\_\_\_

Note: Grantees will be required to obtain an "on-site" rating including blower door test.

Total costs (cannot exceed \$8,000) \_\_\_\_\_

**Part 2: Innovations and Marketing Plans:** On a separate sheet answer the following two questions.

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This sheet plus Part 2: Innovations & Marketing Plans, and an Easy Rating worksheet must be submitted by **December 15, 2004** to: Energy Office, P.O. Box 30221, Lansing, MI 48909. Questions should be directed to Patrick Hudson at 517/241-6154.

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## Nash Builders - Part 2: Innovations and Marketing Plans: *(Sample)*

### Innovations

1. Attic insulation: Soybean based product. Renewable, nonpolluting, carries a high R value.
2. Heat recovery system: A GFX heat recovery device will be used to recapture heat from the master bedroom shower.
3. Solar attic pool heater: For use with heating the outdoor swimming pool eliminating the need for a natural gas powered heater or an electric heater.

### Marketing Plans

1. 2005 Parade of Homes: Nash Builders will have a special ad in the Parade booklet identifying the house as an Energy Star home. A brochure describing the house and its energy efficiency features will be ready for the Parade. We expect 5,000 visitors at the Spring 2005 Parade. Estimated expense: \$1,000.
2. Tour for construction management students from community college: The instructor at Restoration Community College has indicated that he would like his spring and fall classes to tour the house.
3. Tour for local Realtors: The tour for local realtors is planned for the week before the Parade of Homes.
4. Cross section display: A first floor Plexiglas display will show a cross section of the special soybean biobased attic insulation product. This will enable visitors to see the insulation without having to visit the attic. Estimated cost: \$700
5. Website: A website will be developed that documents the construction process and the various energy efficiency features. Estimated cost: \$1,000.

# Easy Rating for Michigan Homes

You can get an idea how *energy efficient* a house is by selecting the appropriate points below. Compare your total points to the scale on the bottom of the page. This is not a home energy rating and does not qualify a home for an energy efficient mortgage. Energy Office/DLEG 8/23/00

Energy Measures	Existing or Proposed	Points
Ceiling Insulation	None 7.6 R-11 18.0 R-19 18.8 R-30 19.2 R-38 19.4 R-45 19.6 R-60 19.9	19.6
Above Grade Wall Insulation	None 4.7 R-11 8.3 R-13 8.8 R-15 9.2 R-19 9.7 R-24 10.3	10.3
Rim/Band Joist Insulation	None .8 R-11 1.4 R-13 1.5 R-19 1.6	1.6
Basement/Foundation Wall Insulation <u>or</u> Floor Insulation (crawl space)	None 3.8 R-5 5.7 R-10 6.7 R-19 7.2 None 3.0 R-11 5.1 R-15 5.7 R-19 6.1	6.7
Concrete Floor Insulation <u>or</u> Slab-on-Grade Insulation	None .8 Under Floor R-5 1.1 R-10 2.2 None .8 Perimeter R-5 3.2 R-10 4.1	1.1
Windows	Single -3.3 Double - 5.2 Low-E - 6.6	6.6
Infiltration/Air Leakage	Average 0 (.67ACH) Good 1.0 (.50ACH) Very Good 2.2 (.35ACH)	2.2
Furnace Efficiency (AFUE) Natural Gas & Oil	50 or Less 10.0 55 22.2 60 27.2 70 32.2 80 34.7 90 37.2 95 38.0	38.0
Clock Thermostat	No - 0 Yes - 1.0	1.0
Ground Water/Geothermal Heat Pump (COP)	1.0 or Less 10.0 2.0 30.9 2.5 35.4 3.0 37.5 3.5 38.2	N/A
Water Heater	Less Efficient 0 Efficient: Gas (.56EF) 1.5 Electric (.93EF) GW Heat Pump (1.3 COP)	1.5
Total Points		88.6

Least Efficient		Home Energy Rating Scale			Most Efficient	
0-39	40-59	60-79	80-85	86-100		
i	i i	i i i	i i i i	i i i i i		

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Rim/Band Joist Insulation	None .8 R-11 1.4 R-13 1.5 R-19 1.6	
Basement/Foundation Wall Insulation <u>or</u> Floor Insulation (crawl space)	None 3.8 R-5 5.7 R-10 6.7 R-19 7.2 None 3.0 R-11 5.1 R-15 5.7 R-19 6.1	
Concrete Floor Insulation <u>or</u> Slab-on-Grade Insulation	None .8 Under Floor R-5 1.1 R-10 2.2 None .8 Perimeter R-5 3.2 R-10 4.1	
Windows	Single -3.3 Double - 5.2 Low-E - 6.6	
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i	i i	i i i	i i i i	i i i i i		

## **Helper's Guide for Easy Rating**

Ceiling Insulation - This would be any insulation in the attic or above a suspended ceiling where most or all rooms have suspended ceilings.

Above Grade Wall Insulation - This is all the outside walls of the house which are above the ground.

Rim/Band Joist Insulation - This is the open area (about 8 to 10 inches) at the top of a basement wall where the wood floor and the basement wall meet.

Basement/Foundation Wall Insulation - Insulation would be on either the inside of the basement wall or it would be on the outside of the basement wall. The basement wall is sometimes referred to as a foundation wall. Generally, if insulation is put on the inside basement wall, it will be covered with drywall or paneling.

Basement/Foundation Floor Insulation - This insulation would most often be put in a crawl space under the floor and between the wood floor supports.

Concrete Floor Insulation - Insulation under the concrete floor in a basement.

Slab-on-Grade Insulation - A house built with a concrete floor with insulation put under the concrete or insulation put around the total perimeter of the concrete floor.

### Windows

Single - One piece of glass in a wood /metal/aluminum or vinyl frame.

Double - Two pieces of glass in a wood/metal/aluminum or vinyl frame. A single window with a storm window would also be an example of a double window.

Low-E - Would generally be two pieces of glass which has a film or coating to help keep the hot or cold temperatures from entering or exiting.

Infiltration/Air Leakage - This refers to the amount of cold or hot air that comes into a house by way of cracks in or around doors and windows, large or small holes made by plumbing or electrical pipes. These areas may be few(average) to none (very good).

Furnace Efficiency (AFUE).Natural Gas & Oil This may be determined by how old the furnace is. For Example:  
A newer furnace 1991-2001-Could be an 80%, 90% ,95% or better. If exact percentage is unknown, then an 80% would be a reasonable selection. Other Years-1990-1984(70%), 1983-1970(60%), 1969-1960(55%). Before 1960(50%)

Clock Thermostat - A battery-operated thermostat which allows the temperature to be set to come on and go off at selected times.

Ground Water/Geothermal Heat Pump (COP) - If you do not know the COP, use "2.5".

Water Heater - If the water heater is new, and the energy efficient label indicator points to "Most Efficient", then use "1.5". Otherwise select "0".

Abbreviations: ACH (air changes per hour), AFUE (annual fuel utilization efficiency), COP (coefficient of performance), EF (energy factor), Low-E (low emissivity), R (resistance value of insulation or material).